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News: Artemis I

- National Aeronautics and Space Administration (NASA) is about to launch its Artemis Program.

Artemis Mission

- Artemis stands for "Acceleration, Reconnection, Turbulence and Electrodynamics of the Moon's interaction with the Sun".
- The goal of Artemis program led by NASA is to land "the first woman and the next man" on the lunar South Pole region by 2024.
- NASA will establish an Artemis Base Camp on the surface and a gateway (the lunar outpost around the Moon) in lunar orbit to aid exploration by robots and astronauts.
- Artemis will be an uncrewed testflight of the Orion spacecraft and SLS rocket.
- Artemis would be the first step towards the long-term goal of establishing a sustainable presence on the Moon, laying the foundation for private companies to build a lunar economy, and eventually sending humans to Mars.
- The main objective of this mission is to find what happens when the Sun's radiation hits our rocky moon, where there is no magnetic field to protect it.

- NASA recently announced a class of 11 astronauts for upcoming space mission including Artemis, which includes an American Indian, Raja Chari.

Other space agencies are also involved in the Artemis programme

- **Canadian Space Agency** has committed to providing advanced robotics for the gateway.
- The **European Space Agency** will provide the International Habitat and the ESPRIT module, which will deliver additional communications capabilities among other things.
- The **Japan Aerospace Exploration Agency** plans to contribute habitation components and logistics resupply.
- **The South Pole of the Moon remains unexplored as compared to the other regions due to moon axis and due to a phenomenon called Tidal Locking.**
- Tidal locking (also called gravitational locking, captured rotation and spin-orbit locking), in the best-known case, **occurs when an orbiting astronomical body always has the same face toward the object it is orbiting.**